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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/847,776

05/02/2001

Erik R. Altman

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06/15/2006

David Aker
23 Southern Road
Hartsdale, NY 10530

EXAMINER

PAN, DANIEL H

ART UNIT

PAPER NUMBER

2183

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/847,776	ALTMAN ET AL	
	Examiner	Art Unit	
	Daniel Pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/02/01, 05/21/01</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-20 are presented for examination.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The reasons are given below.

3. As to claim 1, No physical transformation can be found in the claim. No substantial practical application can be found in the claim. Although claim recites translating the instruction and branching to the translated code, no substantial practical application can be found in the claim. Therefore, it is not useful. It is not tangible because translating the instruction and branching to the translated version is an abstract idea. It is not concrete because it is not sure what the operation will be if the associated tag has not been set, hence not predictable.

4. As to claim 11, similar analysis in claim 1 can be done to claim 11 to show claim 11 is directed to non-statutory subject matter.

5. As to claims 2,12, the looking up of the address is not tangible.

6. As to claims 3,13, no substantial practical application can be found in the claim by just determining and examining the tag.

7. As to claims 4,14, although claim 4 recites the translated version stored in cache, no function of the translated version (translated code) to impart the function of the cache can be found. Therefore, is directed to non statutory subject.

8. As to claims 5,6,15,16, see analysis to claim 4.

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9. As to claims 8,9, 17,18, neither single bit nor multiple bits in memory is directed to functional descriptive material.

10. As to claim 10,19,20, although claim 10 recite executing the instruction, no substantial practical application can be found for executing the instruction.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bala (6,351,844).

12. As to claims 1 ,9, 11, 12, 19, Bala taught a system included a dynamic compilation capability comprising at least :

a) translating an instruction from a first representation (non-native code) to a translated representation (native code) , and setting a tag (see hit) associated with the instruction in the first representation (see col.1, lines 30-47);

b) prior to execution of a given instruction (see translation occurred before outputting the native code for execution in col.1, lines 35-38) in the first representation, examining the tag (hit) associated with the given instruction, and if such associated tag has been set (hit) , branching to the translated version of the given instruction (see the reading of the translated code in the cache memory instead of using the interpreter in col.1, lines 30-62, see also the branch , see also the suspension of the interpreter at hit in col.3, lines 18-30).

13. As to claims 2, 12, Bala also included the address of the translated version of instructions (see the start address in col.3, lines 1-13).

14. As to claims 3, 13, Bala also determined if subsequent instruction existed by examining the tag (see the hit signal in col.3, lines 20-30).

15. As to claims 3,14, see translated code cache in fig.1 [50].

16. As to claims 5,15, see the optimized code replacing the non-optimized code in col.1, lines 10-23.

17. As to claims 6,16, see native code.

18. As to claims 7,17, Bala's tag was also a single bit (see the hit signal).

19. As to claims 8,18, Bala's tag was also multiple bits (see the profile information in col.1, lines 63-67, see also the trace entry 242 of multiple bits in col.7, lines 29-35).

20. As to claim 10,20, see the continuing of the interpreter operation for the given instruction upon miss in col.3, lines 20-30 .

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Lebland et al. (4,809,170) is cited for the teaching of the cache memory storing the translated code with associated tag (see fig.3 [28] [46][48], col.col.10, lines 2-15, col.8, lines 35-68, col.9, lines 1-6);

b) Itou et al. (6,292,939) is cited for tag associated with a translated source file (see col.9, lines 26-55).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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21 Century Strategic Plan

DANIEL H. PAN
PRIMARY EXAMINER
GROUP